

Remarks

Claims 1-13 remain pending in this application after entry of this paper. The Examiner rejected claim 1 under 35 U.S.C. 112, second paragraph, as being indefinite. The Examiner objected to claims 5, 7-8, and 11-12 as being dependent upon a rejected base claim. The Examiner rejected claims 1-2, 4, and 6 under 35 U.S.C. 103(a) as being unpatentable over Weppler (U.S. Patent No. 5,661,700) in view of Schneier (Applied Cryptography, Second Edition) in further view of Hartman (U.S. Patent No. 5,500,897). The Examiner also rejected claims 3, 9-10, and 13 under 35 U.S.C. 103(a). The invention is believed to be patentable.

Claim 1 has been amended to recite the phrase “the trusted high stability time source comprising.” This amendment is believed to overcome the rejection under 35 U.S.C. 112, second paragraph.

Claim 1 recites a trusted high stability time source for use with a digital time stamping service and a trusted external time source. The trusted high stability time source comprises a private time source in the form of a local running clock and indicating a private time, and a published time source in the form of a local running clock and indicating a published time. At least one power supply is arranged to power the private time source and the published time source. Control logic is programmed to perform a time stamping operation using the published time.

Claim 1 further recites performing a published time source update. The published time is updated with a published time update from the trusted external time source if an update condition is satisfied. As specifically recited by claim 1, the update condition is based in part on a time difference between the private time and the published time update.

It is appreciated that the invention involves time stamping with the published time yet taking into consideration the private time when updating the published time. This

approach to implementing a trusted high stability time source overcomes certain problems in the prior art explained in the specification on page 1, lines 7-26.

There is no motivation to combine Weppler, Schneier, and Hartman to achieve the claimed invention. Weppler is about synchronizing local clocks in functional modules of an industrial control system. The local clocks are used to trigger the execution of instructions previously transmitted to the modules. Schneier is about time stamping. Hartman is about a client/server time keeping system.

In more detail Weppler describes a particular mechanism for updating these local clocks which involves transmitting the system time signal in two parts, at two rates. The local clocks are adjusted to the external synchronization signal, and Weppler describes a special technique for adjusting the local clocks to avoid the possibility of a functional module executing instructions twice or not at all. There is nothing in Weppler that suggests the particular claimed approach to updating the published time used for time stamping in a trusted high stability time source and the required update condition.

Regarding Schneier, the Examiner only relies on Schneier for his discussion of digital time stamping. There are additional significant shortcomings in Weppler.

Regarding Hartman, the Examiner only relies on Hartman for teaching the concept of sending the request to an external time source for a time update. As explained above, Weppler has several shortcomings and does not suggest the recited update condition. To the extent that Hartman does describe sending a request to an external time source for a time update, claim 1 recites more than just updating the time of a trusted high stability time source.

Claim 1 recites a specific combination that forms a trusted high stability time source for use with a digital time stamping service wherein a specific approach to updating the published time is used. The combination proposed by the Examiner fails to suggest the

claimed invention. After all, the Examiner is only suggesting that the modules in Weppler receive external time updates as opposed to internal time updates from the master controller. Claim 1 recites a specific update mechanism which the Examiner has not pointed out any suggestion of in the prior art. The invention is not just about relying on an external trusted time source, the invention is about a particular combination of features. Even when taking Schneier into consideration, Schneier only describes aspects of applied cryptography and does not overcome the shortcomings of Weppler and Hartman.

For the reasons given above, claim 1 is believed to be patentable.

The remaining claims are dependent claims and are also believed to be patentable.

Respectfully submitted,
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